9 February, 2010 **Global Monitoring Division Hot Items**

NOAA/ESRL Airborne Instrument Highlighted in WIRED Magazine

Global Monitoring Division - **ESRL-GMD**
This story entered on 4th Feb, 2010 12:02:14 PM PST

The February issue of WIRED magazine (page 23) highlights NOAA/ESRL airborne gas measuring instrumentation that will operate on the unmanned Global Hawk Pacific Mission (GloPac), in March and April 2010. The instruments measure carbon monoxide, methane, hydrogen, nitrous oxide, sulfur hexafluoride, chlorofluorocarbons 11 and 12, halon-1211, water vapor, and ozone. The artide "Robotic Weather Patrol" indudes a description of four instruments that will "spy on doud formations and dimate patterns". The readership of this magazine is geared to how technology affects culture, the economy, and politics.

Background: The US Air Force gave NASA two of the original Global Hawks: the world's first autonomous, high altitude, long-range aircraft to observe the atmosphere. The GloPac mission is the first civilian-based research project involving these planes and will measure a wide range of trace gases important to dimate forcing and stratospheric ozone destruction on five long-range flights over the Pacific Ocean and Arctic out of NASA Dryden Flight Research Center, Edwards, CA. NASA, NOAA, and Northrop Grumman, the aircraft's manufacturer, are funding GloPac. The co-project scientists are David Fahey of NOAA/ESRL and Paul Newman of NASA/Goddard Space Flight Center. Scientists on the project are from NASA; NOAA (CSD and GMD); Droplet Measurements Technologies; Jet Propulsion Laboratory; University of California, Santa Cruz; University of Colorado-CIRES; and University of Denver.

Significance: On the GloPac flights, NOAA/ESRL will be measuring dimate forcing and ozone depleting gases in remote areas of the Pacific and Arctic not normally accessible to conventional monitoring platforms. Monitoring of these greenhouse gases and ozone destroying chemicals helps dimate modelers verify their models and predict future dimate change. The NOAA UAS program, which helps to fund this research, is part of a broader NOAA Science, Technology, and Infusion Program (ST&I) that brings cutting edge technology and science to everyday operations and research.

More information: http://www.wired.com/magazine/2010/01/st_roboweather/

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